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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,256	10/20/2003	Mark Beaumont	DB001077-000	3937

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EXAMINER	
MAI, TAN V	
ART UNIT	**PAPER NUMBER**
2193	

MAIL DATE	DELIVERY MODE
05/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/689,256	BEAUMONT, MARK	
	Examiner	Art Unit	
	Tan V. Mai	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Rejection grounds continue to be those set forth in the previous office action (Paper dated 11/28/06, paragraph 3).

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of copending Application No. 10/689,449. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scopes of the inventions are finding a local extrema by separating the set of into odd set and even set.

Claims 14-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14-21 and 28-30 of copending Application No. 10/689,335. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scopes of the inventions are finding a local extrema by separating the set of into odd set and even set.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. Applicants' arguments filed on 3/26/07 have been fully considered but they are not persuasive.

Applicants, in his remarks, argues that:

(1) "[I]t is respectfully submitted that each of the claims in the instant application produces a useful, concrete, and tangible result. For example, claim 1 recites a method for finding a global extrema for an n-dimensional array. The first step of claim 1 recites determining, within each of the processing elements, a dimensional extrema for a first dimension, wherein the dimensional extrema is related to one or more local extrema of the processing elements in the first dimension. For example, that step would read on calculating an extrema for each row of Fig. 7. The next step of claim 1 is determining within each of the processing elements a next dimensional extrema for a next dimension, wherein the next dimensional extrema is related to one or more of the first dimensional extrema. For example, that would read on determining an extrema for each column in Fig. 7. The next step of claim 1 is to repeat the determining steps within each of the processing elements for a next dimensional extrema until a global extrema is found for the array. The global extrema is then saved.

A global extrema is a number which has meaning in the real world. See, for example, paragraph 10 of the instant application. The recited method is useful in that it determines a global extrema for an array of processing elements. The method recited in claim 1 is concrete in that it is repeatable. A specific value, a global extrema, is

determined and stored for future use. The stored global extrema is tangible in the sense that it has meaning in the real world and is therefore not abstract.
The same is true of claims 14 and 22, which recite steps for determining a dimensional extrema which is then stored. The methods recited in claims 14 and 22 are useful in that they determine a dimensional extrema for a group of processing elements positioned within one dimension. The methods recited in claims 14 and 22 are concrete in that they are repeatable. A specific value, a dimensional extrema, is determined and stored for future use. The stored dimensional extrema is tangible in the sense that it has meaning in the real world, and is therefore not abstract.

Independent claim 30 is an apparatus claim which corresponds to method claim 1. For the same reasons set forth above with respect to claim 1, it is believed that apparatus claim 30 sets forth subject matter which is useful, concrete, and tangible"; **and**

"[i]n paragraph 4 of the Office action, claims 1-30 are provisionally rejected under the judicially created doctrine of the obviousness-type double patenting as being unpatentable over claims 1-31 of copending Application No. 10/689,449. Claims 14-21 are provisionally rejected under the judicially created doctrine of the obviousness-type double patenting as being unpatentable over claims 14-21 and 28-30 of copending Application No. 10/689,335. It is respectfully submitted that the provisional obviousness-type double patenting rejections are improper inasmuch as the two copending applications have the same filing date as the instant application, i.e., neither of the copending applications has an earlier effective filing date. As a result, there can be no unjustified or improper time-wise extension of the "right to exclude" granted by the instant application should it issue as a patent. For that reason, it is respectfully requested that the obviousness-type double patenting rejections be withdrawn." **(emphasis added)**.

With respect to the arguments, the examiner carefully reviews the claimed invention. First, it is noted that applicant hasn't pointed out how/why the claim produces a **useful, concrete, and tangible result**. If the claim as a whole is reasonably interpreted as just solving a mathematical algorithm rather than reciting a practical application of the algorithm which produces a **useful, concrete and tangible result**, then it would be non-statutory. It would appear to be **concrete** and **tangible** in the context of the claim; however, the **useful** [of the saving said global extrema] result

appears lacking. Therefore, the rejection is still proper. Second, it is noted that the rejection is based on the context of the claimed invention not the filing date.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan V. Mai whose telephone number is (571) 272-3726. The examiner can normally be reached on Mon-Wed and Fri. from 9:30am to 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An, can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is:

Official (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Tan V. Mai
Primary Examiner